

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s) : Ivan C. KING and Li Mou ZHENG
U.S. Serial No. : 10/738,423
Confirmation No. : 8783
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Art Unit : 1633
Examiner : Qian Janice LI
For : COMPOSITIONS AND METHODS FOR TUMOR-TARGETED
DELIVERY OF EFFECTOR MOLECULES

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SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

In accordance with their duty of disclosure under 37 C.F.R. §1.56, Applicant(s) would like to direct the Examiner's attention to the following references which are listed below and on forms PTO/SB/08A and PTO/SB/08B (which are attached herein as **Exhibit A**). The individual references are further attached as **Exhibits 1-21**.

Applicants would like to note that the listed references 1-4 are U.S. Patents, listed references 5-6 are U.S. patent publications, and listed references 7-13 are U.S. patent applications. Each of these documents is on file at the USPTO; therefore copies will not be provided. Applicants' attorney's office may be contacted in the event that the Examiner would like a copy of the above reference.

Applicants : Ivan C. KING and Li Mou ZHENG
U.S. Serial No. : 10/738,423
Filed : December 16, 2003
Page : 2

References 14, 16-17, 19-37, 39, 41-55, 57-58, 60, 62-68, 70, and 79 were submitted in related U.S. Serial No. 11/117,085, filed August 2, 2007. Reference 38 corresponds to International Publication No. WO/1996/040238. References 40 and 44 correspond to International Publication No. WO/2001/025397. Accordingly, pursuant to 37 CFR 1.98(d), a copies of these references are not required to be submitted with this SIDS. However, Applicants invite the Examiner to contact the Applicants' undersigned attorney's office if a copy of any of the listed references is desired.

1. U.S. Patent No. 6,962,696, November 8, 2005, Bermudes, et al., "Compositions and methods for tumor-targeted delivery of effector molecules"
2. U.S. Patent No. 6,955,953, October 18, 2005, Yamazaki, et al., "Method of manufacturing a semiconductor device having thin film transistor and capacitor"
3. U.S. Patent No. 6,605,286, August 12, 2003, Steidler, et al., "Delivery of biologically active polypeptides"
4. U.S. Patent No. 6,150,170, November 21, 2000, Powell, et al., "Method for introducing and expressing genes in animal cells, and live invasive bacterial vectors for use in the same"
5. U.S. Publication No. US-2004-0229338 A1, November 18, 2004, King, et al., "Compositions and Methods for Tumor-Targeted Delivery of Effector Molecules"

Applicants : Ivan C. KING and Li Mou ZHENG
U.S. Serial No. : 10/738,423
Filed : December 16, 2003
Page : 3

6. U.S. Publication No. US-2005-0249706 A1, November 10, 2005, Bermudes, et al., "Compositions and methods for tumor-targeted delivery of effector molecules"
7. U.S. Application No. 11/627,743, January 26, 2007, Ivan C. King and Li Mou Zheng, "Compositions and methods for tumor-targeted delivery of effector molecules"
8. U.S. Application No. 08/486,422, June 7, 1995, Pawelek, et al., "Vectors for the Diagnosis and Treatment of Solid Tumors Including Melanoma"
9. U.S. Application No. 10/723,570, November 24, 2003, Pawelek, et al., "Vectors for the diagnosis and treatment of solid tumors including Melanoma"
10. U.S. Application No. 11/117,085, April 28, 2005, Bermudes, et al., "Genetically modified tumor-targeted bacteria with reduced virulence"
11. U.S. Application No. 11/064,533, February 23, 2005, Bermudes, et al., "Genetically modified tumor-targeted bacteria with reduced virulence"
12. U.S. Application No. 11/082,544, March 17, 2005, Bermudes, et al., "Compositions and methods for tumor-targeted delivery of effector molecules"
13. U.S. Application No. 09/724,390, November 28, 2000, Bermudes, et al., "Genetically Modified Tumor-Targeted Bacteria with Reduced Virulence"

Applicants : Ivan C. KING and Li Mou ZHENG
U.S. Serial No. : 10/738,423
Filed : December 16, 2003
Page : 4

14. European Patent No. EP 0833660, December 20, 2006, Yale University, et al., "Vectors for the diagnosis and treatment of solid tumors including Melanoma"
15. European Patent No. EP 1012232, June 28, 2000, VION Pharmaceuticals, Inc., et al., "Genetically modified tumor-targeted bacteria with reduced virulence" [Exhibit 1]
16. International Publication No. WO/1995/009655, April 13, 1995, The Government of the United States of America, et al., "Treatment of tumors by genetic transformation of tumor cells with genes encoding negative selective markers and Cytokines"
17. International Publication No. WO/2001/025397, December 4, 2001, VION Pharmaceuticals, Inc., et al., "Compositions and Methods for Tumor Targeted Delivery of Effector Molecules"
18. International Publication No. WO/1992/015689, September 17, 1992, Charles, et al., "Expression of recombinant proteins in attenuated bacteria" [Exhibit 2]
19. Australian Patent No. 719446, August 24, 2000, Yale University, et al., "Vectors for the diagnosis and treatment of solid tumors including Melanoma"
20. Australian Patent No. 783714, March 23, 2006, VION Pharmaceuticals, Inc., et al., "Compositions and methods for tumor-targeted delivery of effector molecules"

Applicants : Ivan C. KING and Li Mou ZHENG
U.S. Serial No. : 10/738,423
Filed : December 16, 2003
Page : 5

21. Australian Patent No. 749695, July 4, 2002, VION Pharmaceuticals, Inc., et al., "Genetically modified tumor-targeted bacteria with reduced virulence"
22. Chinese Patent No. ZL96196140.6, February 18, 2004, Yale University, et al., "Vectors for the diagnosis and treatment of solid tumors including Melanoma"
23. Chinese Patent No. ZL98811030.X, April 26, 2006, VION Pharmaceuticals, Inc., et al., "Genetically modified tumor-targeted bacteria with reduced virulence"
24. Hong Kong Patent No. HK1017253, July 30, 2004, Yale University, et al., "Vectors for the diagnosis and treatment of solid tumors including Melanoma"
25. Hong Kong Patent No. HK1033956, November 17, 2006, VION Pharmaceuticals, Inc., et al., "Genetically modified tumor-targeted bacteria with reduced virulence"
26. Japanese Patent No. 3482213, October 10, 2003, Yale University, et al., "Vectors for the diagnosis and treatment of solid tumors including Melanoma"
27. Korean Patent No. 0435932, June 3, 2004, Yale University, et al., "Vectors for the diagnosis and treatment of solid tumors including Melanoma"
28. New Zealand Patent No. 312341, September 8, 1999, Yale University, et al., "Vectors for the diagnosis and treatment of solid tumors including Melanoma"

Applicants : Ivan C. KING and Li Mou ZHENG
U.S. Serial No. : 10/738,423
Filed : December 16, 2003
Page : 6

29. New Zealand Patent No. 503376, October 25, 2002, VION Pharmaceuticals, Inc., et al., "Genetically modified tumor-targeted bacteria with reduced virulence"
30. New Zealand Patent No. 518354, February 25, 2002, VION Pharmaceuticals, Inc., et al., "Compositions and methods for tumor-targeted delivery of effector molecules"
31. Singapore Patent No. 51176, December 7, 1998, Yale University, et al., "Vectors for the diagnosis and treatment of solid tumors including Melanoma"
32. Singapore Patent No. 71486, April 30, 2004, VION Pharmaceuticals, Inc., et al., "Genetically modified tumor-targeted bacteria with reduced virulence"
33. South African Patent No. 98/8289, May 26, 1999, VION Pharmaceuticals, Inc., et al., "Genetically modified tumor-targeted bacteria with reduced virulence"
34. European Publication No. 1261369, December 4, 2002, VION Pharmaceuticals, Inc., et al., "Compositions and Methods for Tumor Targeted Delivery of Effector Molecules"
35. Brazilian App'l No. PI-9609016-2, June 5, 1996, Yale University, et al., "Vectors for the diagnosis and treatment of solid tumors including Melanoma"
36. Brazilian App'l No. PI-9812079-4, March 10, 2000, VION Pharmaceuticals, Inc., et al., "Genetically modified tumor-targeted bacteria with reduced virulence"

Applicants : Ivan C. KING and Li Mou ZHENG
U.S. Serial No. : 10/738,423
Filed : December 16, 2003
Page : 7

37. Brazilian App'l No. PI-0014491-6, April 4, 2002, VION Pharmaceuticals, Inc., et al., "Compositions and methods for tumor-targeted delivery of effector molecules"
38. Canadian App'l No. 2,224,075, December 8, 1997, Yale University, et al., "Vectors for the diagnosis and treatment of solid tumors including Melanoma"
39. Canadian App'l No. 2,302,866, March 3, 2000, VION Pharmaceuticals, Inc., et al., "Genetically modified tumor-targeted bacteria with reduced virulence"
40. Canadian App'l No. 2,386,465, April 2, 2002, VION Pharmaceuticals, Inc., et al., "Compositions and methods for tumor-targeted delivery of effector molecules"
41. Chinese App'l No. 00816714.1, August 24, 2000, VION Pharmaceuticals, Inc., et al., "Compositions and methods for tumor-targeted delivery of effector molecules"
42. Hong Kong App'l No. 03108220.2, November 12, 2003, VION Pharmaceuticals, Inc., et al., "Composition and methods for tumor-targeted delivery of effector molecules"
43. Israeli App'l No. 134936, July 3, 2000, VION Pharmaceuticals, Inc., et al., "Genetically modified tumor-targeted bacteria with reduced virulence"
44. Israeli App'l No. 148933, March 27, 2002, VION Pharmaceuticals, Inc., et al., "Compositions and methods for tumor-targeted delivery of effector molecules"

Applicants : Ivan C. KING and Li Mou ZHENG
U.S. Serial No. : 10/738,423
Filed : December 16, 2003
Page : 8

45. Japanese App'l No. 2000-510842, March 10, 2000, VION Pharmaceuticals, Inc., et al., "Genetically modified tumor-targeted bacteria with reduced virulence"
46. Japanese App'l No. 2001-528552, April 4, 2002, VION Pharmaceuticals, Inc., et al., "Compositions and methods for tumor targeted delivery of effector molecules"
47. Korean App'l No. 7002535/2000, March 10, 2000, VION Pharmaceuticals, Inc., et al., "Genetically modified tumor-targeted bacteria with reduced virulence"
48. Korean App'l No. 7004371/2002, April 4, 2002, VION Pharmaceuticals, Inc., et al., "Compositions and methods for tumor-targeted delivery of effector molecules"
49. Mexican App'l No. 979439, December 3, 1997, Yale University, et al., "Vectors for the diagnosis and treatment of solid tumors including Melanoma"
50. Mexican App'l No. 2000002355, March 8, 2000, VION Pharmaceuticals, Inc., et al., "Genetically modified tumor-targeted bacteria with reduced virulence"
51. Mexican App'l No. 2002003384, April 3, 2002, VION Pharmaceuticals, Inc., et al., "Compositions and methods for tumor-targeted delivery of effector molecules"
52. Singapore App'l No. 200201817-4, April 1, 2002, VION Pharmaceuticals, Inc., et al., "Compositions and methods for tumor-targeted delivery of effector molecules"

Applicants : Ivan C. KING and Li Mou ZHENG
U.S. Serial No. : 10/738,423
Filed : December 16, 2003
Page : 9

53. Brazilian Examiner's Report for Yale University,
Brazilian App'l No. PI-9609016-2, filed June 5, 1996,
Dated July 18, 2006
54. Mexican Search Report for Yale University, Mexican App'l
No. 979439, Filed December 3, 1997, Dated June 29, 2007
55. Israeli Office Action for Yale University, et al.,
Israeli App'l No. 134936, Filed July 3, 2000, Dated
April 11, 2007
56. U.S. Office Action for Bermudes, et al., U.S. Serial No.
11/064,533, (Atty. Dkt. #871-BAA-US) Filed February 23,
2005, Dated March 12, 2007 [Exhibit 3]
57. Bell, et al., 1990, "Molecular genetic analysis of an
FNR-dependent anaerobically inducible Escherichia coli
promoter," Molec. Microbiol. 4:1753-63
58. Clarke, S., 2001, "Diarrhoeagenic Escherichia coli - an
emerging problem?" Diagnostic Microbiol. and Infect.
Disease 41:93-98
59. Cunningham, C. and Nemunaitis, J., 2001, "Recombinant
DNA advisory committee meeting, June 14-15, 2001:
Protocols reviewed," Human Gene Therapy 12:1594-1596
[Exhibit 4]
60. Deonarain, et al., 1995, "Genetic delivery of enzymes
for cancer therapy," Gene Therapy, Vol. 2, No. 4:235-244

Applicants : Ivan C. KING and Li Mou ZHENG
U.S. Serial No. : 10/738,423
Filed : December 16, 2003
Page : 10

61. Dinarello, et al., 1991, "Blocking IL-1:Interleukin-1 receptor antagonist in vivo and in vitro," Immunology Today 12(11):404-410 [Exhibit 5]
62. Fairweather, et al., 1990, "Use of live attenuated bacteria to stimulate immunity," Res. Microbiol. 141:769-773
63. Fairweather, et al., 1990, "Oral vaccination of mice against tetanus by use of a live attenuated Salmonella carrier," Infect Immunity, 58:1323-26
64. Galanos, et al., 1969, "A new method for the extraction of R. lipopolysaccharides," European J. Biochem. 9:245-249
65. Huber, et al., 1994, "Metabolism of 5-fluorocytosine to 5-fluorouracil in human colorectal tumor cells transduced with the cytosine deaminase gene: Significant antitumor effects when only a small percentage of tumor cells express cytosine deaminase," Proc. Natl. Acad. Sci. USA 91:8302-8306
66. Jain, et al., 2001, "Use of bacteria as anticancer agents," Exp. Opin. Biol. Ther. 1(2):291-300
67. Jayaraman, et al., 1988, "The nirB promoter of Escherischia coli: Location of nucleotide sequences essential for regulation by oxygen, the FNR protein and nitrite," Molec. Microbiol. 2:527-530

Applicants : Ivan C. KING and Li Mou ZHENG
U.S. Serial No. : 10/738,423
Filed : December 16, 2003
Page : 11

68. Littler, et al., 1992, "Human cytomegalovirus UL97 open reading frame encodes a protein that phosphorylates the antiviral nucleoside analogue ganciclovir," Nature 358:160-162
69. Low, et al., 1998, "Disruption of the Salmonella msbB gene suppresses virulence and TNF α induction yet retains tumor-targeting in vivo," Proceedings of the American Association for Cancer Research Annual Meeting 39:60, XP001182904 [Exhibit 6]
70. Morrison, et al., 1994, "Current status of bacterial endotoxins," ASM News 60:479-484
71. Nemunaitis, et al., 2003, "Pilot trial of genetically modified, attenuated Salmonella expressing the E. coli cytosine deaminase gene in refractory cancer patients," Cancer Gene Ther. 10:737-44 [Exhibit 7]
72. Pawelek, et al., 1997, "Tumor-targeted Salmonella as a novel anti-Melanoma vector," Melanoma Research, 4th World Conference on Melanoma, Sydney, Australia, June 10-14, 1997, Vol. 7 (Suppl. 1) [Exhibit 8]
73. Yu, et al., 2004, "Visualization of tumors and metastases in live animals with bacteria and vaccinia virus encoding light-emitting proteins," Nat. Biotechnol. 2004, Mar;22(3):313-20 [Exhibit 9]
74. Sullivan, et al., 1992, "A protein kinase homologue controls phosphorylation of ganciclovir in human

Applicants : Ivan C. KING and Li Mou ZHENG
U.S. Serial No. : 10/738,423
Filed : December 16, 2003
Page : 12

cytomegalovirus-infected cells," Nature 358:162-164
[Exhibit 10]

75. U.S. Office Action for Bermudes et al., U.S. Serial No.
11/064,533, (Atty. Dkt. #871-BAA-US) Filed February 23,
2005, dated October 3, 2006 [Exhibit 11]

76. U.S. Office Action for Bermudes et al., U.S. Serial No.
11/064,533, (Atty. Dkt. #871-BAA-US) Filed February 23,
2005, dated May 4, 2007 [Exhibit 12]

77. Notice of Allowance and Fee(s) Due for Bermudes et al.,
U.S. Serial No. 11/064,533, (Atty. Dkt. #871-BAA-US)
Filed February 23, 2005, dated August 1, 2007 [Exhibit
13]

78. U.S. Office Action for Bermudes et al., U.S. Serial No.
11/117,085 (Atty. Dkt. #871-AZB-US) Filed April 28,
2005, dated July 5, 2007 [Exhibit 14]

79. Vion Pharmaceuticals, Inc., et al., European Application
No. 98 94 6891, September 9, 1998, "Genetically Modified
Tumor-Targeted Bacteria with Reduced Virulence"

80. European Communication for VION Pharmaceuticals, Inc.,
European App'l No. 98946891.3 (Atty. Dkt. #871-AB-PCT-
EPO), Filed September 9, 1998, Dated April 10, 2007
[Exhibit 15]

81. European Communication for VION Pharmaceuticals, Inc.,
European App'l No. 00 957 764.4 (Atty. Dkt. #873-PCT-

Applicants : Ivan C. KING and Li Mou ZHENG
U.S. Serial No. : 10/738,423
Filed : December 16, 2003
Page : 13

EPO), Filed May 3, 2002, Dated October 26, 2006 [Exhibit 16]

82. International Publication No. WO/1998/053854, March 12, 1998, The Research Foundation of State University of New York, et al., "Antigen Delivery System" [Exhibit 17]
83. Japanese Patent Publication No. 62-145026 for Advance KK, "Anticarcinogenic Agent," Dated June 29, 1987 [Exhibit 18]
84. Japanese Patent Publication No. 62-298657 for Nippon Shoji KK, "Immunopotential Agent," Dated October 25, 1994 [Exhibit 19]
85. Japanese Patent Publication No. 01-180830 for Kayaku KK, "Antitumor Agent," Dated July 18, 1989 [Exhibit 20]
86. Japanese Patent Publication No. 63-101328 for Shionogi & Co., "Antitumor Agent," Dated May 6, 1988 [Exhibit 21]

Applicants : Ivan C. KING and Li Mou ZHENG
U.S. Serial No. : 10/738,423
Filed : December 16, 2003
Page : 14

Applicants further give authorization to charge the amount of ONE-HUNDRED EIGHTY DOLLARS (\$180.00) to Deposit Account 50-1891. This is the amount set forth in § 1.17(p) to cover the charge for submitting an Information Disclosure Statement subsequent to the mailing date of a first Office Action on the merits but before mailing of a final action.

If a telephone interview would be of assistance in advancing prosecution of the subject examination, Applicants' undersigned attorney invites the Examiner to telephone him at the number provided below. No fee other than the ONE-HUNDRED EIGHTY DOLLARS (\$180.00) is deemed necessary in connection with the filing of this Supplemental Information Disclosure Statement. However, if any fee is required, authorization is hereby given to charge the amount of any such fee to Deposit Account No. 50-1891.

Respectfully submitted,
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